

## Wind and Solar Curtailment April 07, 2019

This report is produced daily to provide a detailed accounting of the wind and solar renewable generation that was curtailed and the reasons why<sup>1</sup>. This report should be read in the context of the Renewables Watch report for a more complete understanding of both renewable curtailment and generation<sup>2</sup>.

Wind and solar curtailments are grouped into the following categories:

1. Economic - Local: Market dispatch of generators with economic bids to mitigate local congestion<sup>3</sup>.
2. Economic - System: Market dispatch of generators with economic bids to mitigate system-wide oversupply<sup>4</sup>.
3. SelfSchCut - Local: Market dispatch of self-schedules to mitigate local congestion.
4. SelfSchCut - System: Market dispatch of self-schedules to mitigate system-wide oversupply.
5. ExDispatch - Local: Exceptional dispatch to mitigate local congestion.
6. ExDispatch - System: Exceptional dispatch to mitigate system-wide oversupply.

Note: Amounts smaller than 1 MW are filtered out for simplicity. Such small curtailments are occasionally observed when forecasts are lower than Pmin when market will de-commit the unit and send the 0 MW dispatch.

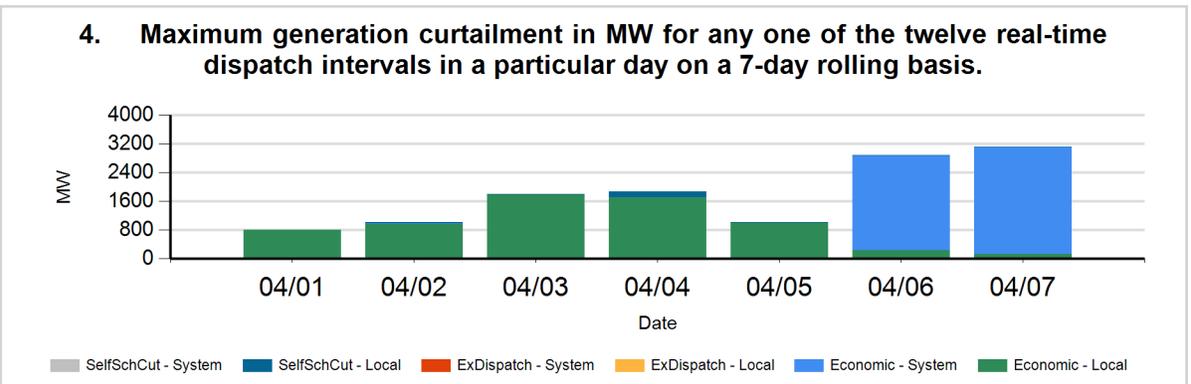
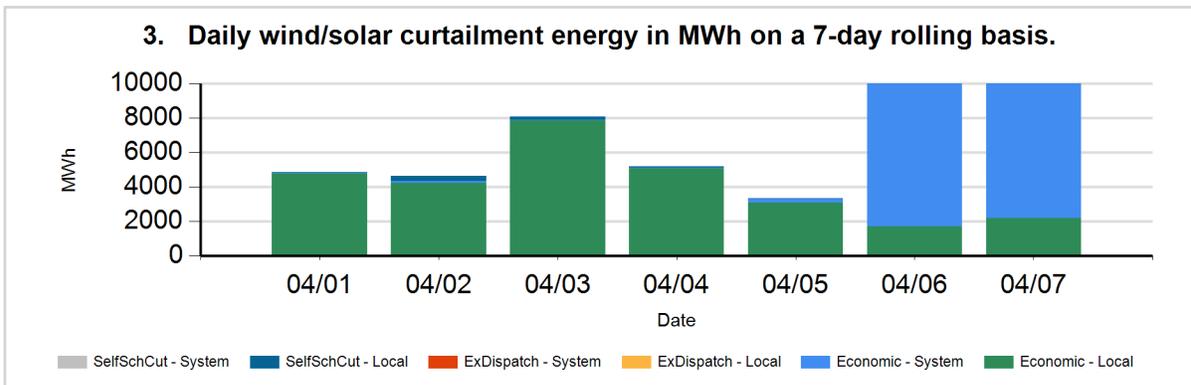
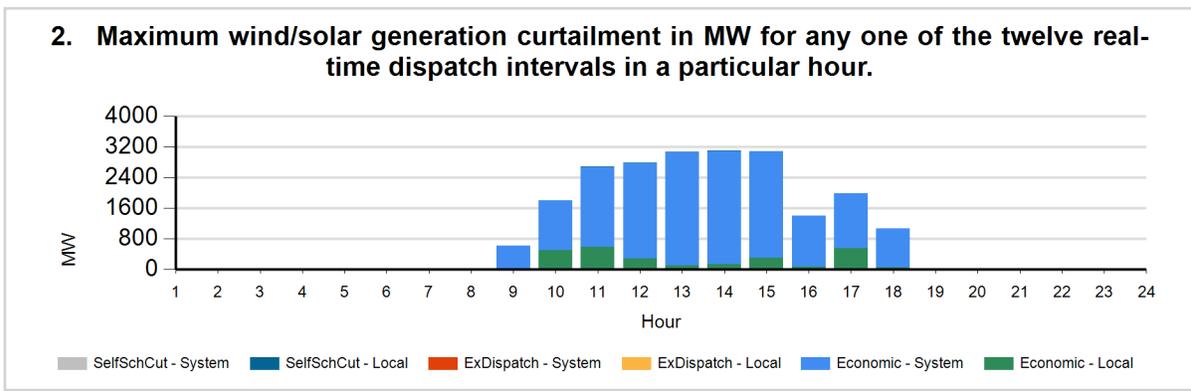
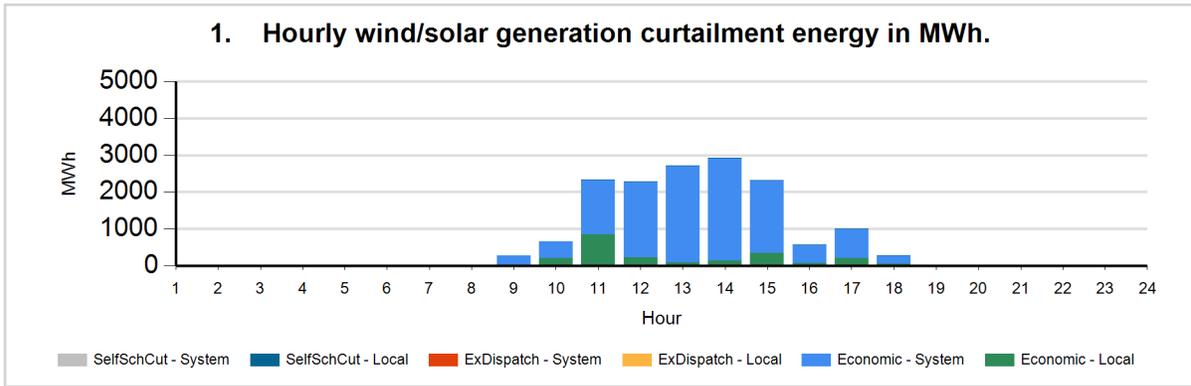
<sup>1</sup>Only wind and solar resources can be reported in this manner because these resources have a forecast. Curtailment is defined as the difference between actual production and the forecast when actual production is less than the forecast.

<sup>2</sup>The Renewables Watch report provides daily actual renewable production within the ISO grid. It is available at: <http://www.caiso.com/green/renewableswatch.html>.

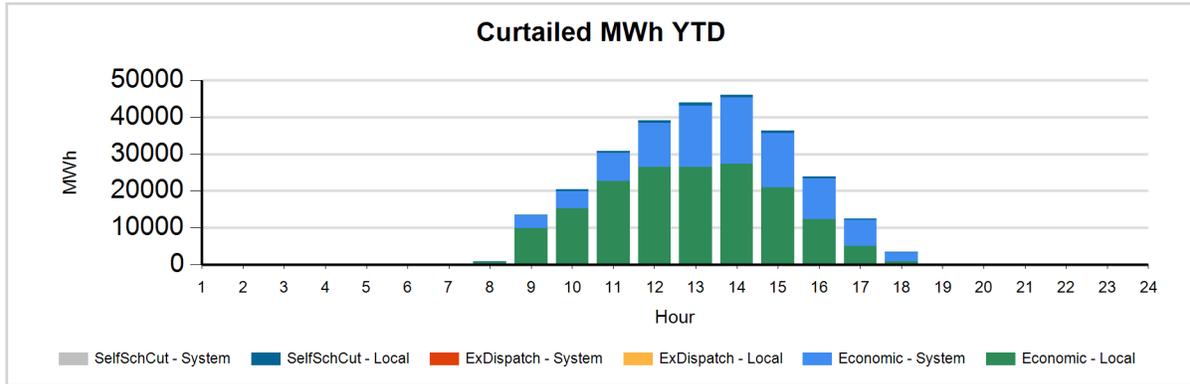
<sup>3</sup>Congestion occurs when available, least-cost energy cannot be delivered to some loads because transmission facilities do not have sufficient capacity to deliver the energy.

<sup>4</sup>For more information on oversupply conditions, please see: [https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables\\_FastFacts.pdf](https://www.caiso.com/Documents/FlexibleResourcesHelpRenewables_FastFacts.pdf)

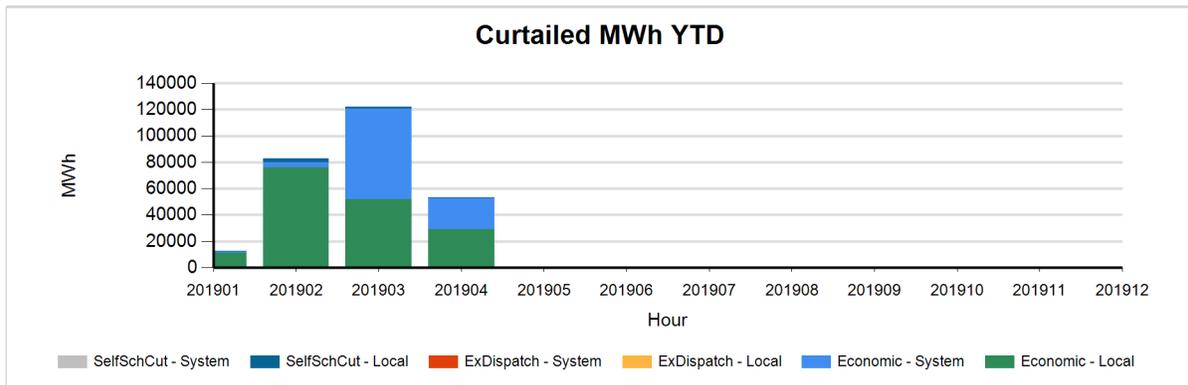
The following charts show the daily and 7-day rolling wind and solar curtailment by category, if any.



The following charts show hourly year to date wind and solar curtailment by category, if any.



The following charts show monthly year to date wind and solar curtailment by category, if any.



TYPE	YTD CURTAILED MWH
LocalEconomic	168,005
LocalSelfSchCut	5,238
SystemEconomic	97,660
TOTAL	270,903

**Data used to produce hourly chart**

DATE	HOUR	CURT TYPE	REASON	FUEL TYPE	CURTAILED MWH	CURTAILED MW
04/07	8	Economic	System	SOLR	1	9
04/07	9	Economic	Local	SOLR	14	16
04/07	9	Economic	System	SOLR	255	590
04/07	9	Economic	System	WIND	5	7
04/07	10	Economic	Local	SOLR	207	505
04/07	10	Economic	System	SOLR	438	1281
04/07	10	Economic	System	WIND	6	21
04/07	11	Economic	Local	SOLR	838	576
04/07	11	Economic	System	SOLR	1476	2084
04/07	11	Economic	System	WIND	14	21
04/07	11	SelfSchCut	Local	SOLR	4	1
04/07	12	Economic	Local	SOLR	227	288
04/07	12	Economic	System	SOLR	2041	2464
04/07	12	Economic	System	WIND	16	25
04/07	12	SelfSchCut	Local	SOLR	4	15
04/07	13	Economic	Local	SOLR	89	91
04/07	13	Economic	System	SOLR	2599	2947
04/07	13	Economic	System	WIND	15	24
04/07	13	SelfSchCut	Local	SOLR	5	5
04/07	14	Economic	Local	SOLR	139	123
04/07	14	Economic	System	SOLR	2765	2959
04/07	14	Economic	System	WIND	19	13
04/07	14	SelfSchCut	Local	SOLR	5	5
04/07	15	Economic	Local	SOLR	341	304
04/07	15	Economic	System	SOLR	1927	2588
04/07	15	Economic	System	WIND	53	187
04/07	16	Economic	Local	SOLR	60	63
04/07	16	Economic	System	SOLR	496	1319
04/07	16	Economic	System	WIND	5	10
04/07	17	Economic	Local	SOLR	211	549
04/07	17	Economic	System	SOLR	781	1423

04/07	17	Economic	System	WIND	6	6
04/07	18	Economic	Local	SOLR	53	42
04/07	18	Economic	System	SOLR	220	1021
04/07	18	Economic	System	WIND	2	9
04/07	19	Economic	Local	SOLR	1	7

The information contained in this report is preliminary and subject to change without notice. No inference, decision or conclusion should be made based on the information in this report or any series of these reports. All values are hourly average unless otherwise stated. Questions about this report should be directed to Short-Term Forecasting at [ShortTermForecasting@caiso.com](mailto:ShortTermForecasting@caiso.com).